

CERRO COPPER & BRASS COMPANY

DIVISION OF CERRO CORPORATION

INTERNAL MEMORANDUM

Form HQ-10

SHOW NAME, TITLE AND CORPORATION OF ADDRESSEE AND ADDRESSOR

OTHER ADDRESSEES - FOR INFORMATION

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TO: W. E. Dunnick, Vice President

DATE: November 22, 1971

FROM: P. Tandler, Technical Manager

SUBJECT: REVISED EFFLUENT CRITERIA AND WATER QUALITY STANDARDS

I have just received an advance copy of data to be published by the Illinois Pollution Control Board in its next newsletter, relating to a proposed final draft of these regulations which have been discussed at various public hearings in the past six months.

My copy is attached for your perusal but I thought it best to give you a brief overview of the changes now proposed by the Board, as they have a profound effect on our future plans for internal waste treatment:

1. Copper:

The copper standard for effluents has been revised upward from .04 mg/l (ppm) to 1.0 mg/l. This suggests that neither Cerro nor the Village of Sauget treatment plant will have to make any special provisions for the removal of copper inasmuch as this standard can be met with the presently proposed secondary treatment scheme at the treatment plant.

The news release suggests that presently available technology makes the earlier proposed standard too difficult to meet and reference is made to testimony rendered by the Village of Sauget and Olin Corporation, who, incidentally, were recently granted a variance to 1.0 mg/l to enable construction of a \$6,000,000 treatment facility at East Alton.

2. Total Metals:

This criterion has been completely dropped from the final draft as the original proposed effluent standard of 2.0 ppm for total metals was based on the possible synergistic effects of certain metals in combination rather than on any evidence as to achievability concentrations, and there

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seems to be no evidence to support this standard as economically or technically feasible.

3. Total Dissolved Solids:

The originally proposed effluent standard of 750 mg/l has been raised to 3500 mg/l. Although this change does not affect Cerro directly, it is a very desirable change from an overall standpoint, as it encourages the recycling of water with the attendant increase in dissolved solids concentration, which ultimately will have to be discharged to the river. The testimony given by the Village suggested a standard of 1500 to 2000 mg/l, and this is, of course, an even more liberal standard.

4. Dilution:

The initially proposed regulations indicated that the effluent standards would have to be met without any allowance for dilution. Prior to this final draft, the Board published a revised standard proposal that retained the general prohibition of dilution while leaving some room for engineering judgement as to the desirability of separating or combining waste streams for treatment. In both cases, a deliberate dilution procedure in lieu of treatment is prohibited. The final proposal is in line with that revised standard.

5. Background Concentrations:

This subject relates to contaminants already present in a water supply, such as deep well or river water, and it was suggested during the hearings that credit should be given for impurities already contained in a plant's water supply. Rather than to make a definite ruling on this subject the Board feels that a case-by-case approach should be taken.

6. Other Heavy Metals:

We have been previously advised by our consultants that such metals as iron, lead, zinc, nickel, and cadmium discharged from our plant in low concentrations would not present any problems to the secondary treatment facility. Several of these metals have been retained as previously proposed, others have been made more liberal and we, therefore, are not affected by the new proposal.

7. Mercury:

The mercury standard of .0005 mg/l (0.5 parts per billions) which was adopted in March, 1971 will stand in its present form. This is Federal law. We have taken several readings in our own plant to check on compliance and find that in some instances we have complied, while in others we have been above the allowable limit. I have not resolved to this date the effect on the treatment plant of Cerro's mercury content, but in the light of Monsanto Company's vastly greater amount of mercury discharge, I am sure that some sort of variance will have to be sought by the Village together with Monsanto Company, and that our small mercury discharge will probably have little bearing on the overall situation. In view of the location of these mercury trace discharges within our own plant, I must assume that these are contained in our incoming scrap rather than caused by accidental dumping from instrumentation within the plant.

8. Combined Sewers and Treatment Plant By-Passes:

The Board is a little vague about its future plans on this subject. It will be recalled that, following the publication of its proposed regulations, it indicated that storm water collected in combined sewers with sanitary and industrial waste would have to be subjected to secondary treatment to meet the effluent standards. It is now proposed that the degree of treatment required not be specified except that it must include as a minimum the equivalent of primary treatment and disinfection. However, it is also stated that if additional measures later prove necessary, they can later be required. This, in my opinion, throws a considerable question into the matter of sizing the secondary treatment facility for the Village.

The Board has proposed two additional hearings for the review of its final draft, with dates to be announced shortly, and, although the environmentalists may protest the somewhat more liberal standards, it is felt that these final proposals have a good chance of being adopted as regulations. I will make it my business to attend one of the hearings, with your approval.

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